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Anticancer potential of *Dillenia indica* and *Dillenia pentagyna* plants and its correlation with presence of active phytoconstituent

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The present investigation was aimed to develop simple, sensitive, fast and accurate RP-HPLC method for estimation of betulinic acid from bark and leaf of *D. indica* and *D. pentagyna*, widely distributed in forest regions of India, is used as a traditional medicine for the treatment of cancer and cardio vascular diseases. HPLC separation was achieved on a C₁₈ Purosphere Star Hyber (250×4.6 mm, 5 μm, Merck). The mobile phase consisting of acetonitrile and water (93:7 v/v) with flow rate 1.2 ml/min at 207 nm. For estimation of betulinic acid, different fractions such as benzene and ethyl acetate using bark and leaves of *D. indica* were prepared. Chromatogram showed peak of betulinic acid at Rt 6.308 min. Analysis of data showed that the method is reproducible and selective for the estimation of betulinic acid. Based on results obtained by RP-HPLC method, prepared fractions were evaluated for its anticancer potential. MTT assay has been performed on three different cell lines HCT-15, DU145 and A-375 which explains role of betulinic acid and the anticancer potential of plants.

Biography

Dipal Gandhi has completed her BPharm and MPharm from LM College of Pharmacy and PhD from Nirma University, Gujarat. She is working as an Assistant Professor, Department of Pharmacognosy at Institute of Pharmacy, Nirma University since 8 years. Her area of research work is mainly in phytochemical investigation, standardization and quality control of herbal drugs, analytical method development of phytoconstituents and evaluation of their pharmacological activity.

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